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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/501,434	02/10/2000	John S. Lee	510.030US1	3838

7590 09/16/2004  
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EXAMINER

CHU, KIM KWOK

ART UNIT PAPER NUMBER

2653

DATE MAILED: 09/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/501,434	LEE ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Kim-Kwok CHU	2653	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 26 July 2004.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1, 2, 4-19 and 21-31 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 5, 28 and 29 is/are allowed.
- 6) ☒ Claim(s) 1, 4, 9, 13-19, 21-27 and 30 is/are rejected.
- 7) ☒ Claim(s) 2, 6-8, 10-12 and 31 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 April 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

***Response to Remarks***

1. Applicant's comments filed on July 26, 2004 have been fully considered.

(a) Applicant states that the "Hayashi reference cradles a disk" (page 11 of the Remarks, lines 19 and 20). Accordingly, Applicant does not exactly define his gripping feature. On the other hand, in claim 1, line 9, Applicant uses the term "compact discs are held" to describe his disc gripping feature. Therefore, the prior art of Hayashi's disc containing means "four pallets 9" (Fig. 9; column 6, lines 57 and 58) can be interpreted as Applicant's amended gripping/directly holding discs feature; and

(b) Applicant disagrees that the prior art of Hayashi teaches Applicant's claimed feature "maintaining a fixed relative positions of the discs while the first and second compact discs are engaged by the gripping head" (page 11 of the Remarks, last 4 lines). Applicant points out that Hayashi teaches "the discs D are dropped onto these empty pallets 9 and turned over" ((page 11 of the Remarks, line 24). Accordingly, Hayashi teaches that "four pallets 9 have been contained within the rotating frame 22" (Fig. 9; column 6, lines 57 and 58). In other words, each disc contained in their respective set of pallets 9 is maintaining a fixed relative position as Applicant's claimed feature. With respect to the feature of

how a disc is turned over, Applicant does not claim such feature.

**Claim Rejections - 35 USC § 103**

2. The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

*(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.*

3. Claims 1, 4, 9, 13, 18, 19 and 21-26 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Balsom. (U.S. Patent 5,592,596)) in view of Hayashi et al. (U.S. Patent 6,304,525).

Balsom teaches a compact disc processing system very similar to that of the instant invention. For example, Balsom teaches the following means and steps:

(a) as in claim 1, a printer 50 for printing indicia on a first compact disc (Column 6, lines 17-20);

(b) as in claim 1, a recorder 43 for recording information on the first compact disc (column 2, lines 9-12);

(c) as in claim 1, a transporter carriage 45 for gripping the first compact disc and moving the first compact disc to

reach the recorder 43 (Fig. 1b; gripping means holding tight);  
and

(d) as in claim 4, the transporter carriage 45 is movable in both a horizontal and vertical direction (Fig. 1b).

However, Balsom does not teach the following:

(a) as in claim 1, the transporter carriage for gripping the first compact disc and moving the first compact disc between the recorder and the printer;

(b) as in claim 1, the transporter carriage comprises a single gripping head rotatable about a horizontal axis having first and second locations each for respectively gripping and directly holding the first and second compact disc simultaneously by the single gripping head; and

(c) as in claim 1, the first and second compact discs are held in fixed relative positions coextensive along a common axis in different planes while the first and second compact discs are engaged by the gripping head.

Hayashi teaches a disc inverting mechanism having above features. For example, Hayashi teaches the following:

(a) a transporter carriage 8 for gripping the first compact disc and moving the first compact disc in both vertical and horizontal direction (Fig. 4);

(b) the transporter carriage 8 comprises a single horizontally rotatable gripping head 9 having first and second

locations each for respectively gripping and directly holding the first and second compact disc simultaneously by the single gripping head (Fig. 2);

(c) the first and second compact discs are engaged by the gripping head 9 (Fig. 4); and

(d) the first and second compact discs are held in fixed relative positions while the first and second compact discs are engaged by the gripping head 9 (Fig. 4).

A typical disc labeling system such as Balsom's requires a disc conveying mechanism for transporting a selected disc from one location such as a recording means to another location such as a labeling means. For example, Hayashi uses a vertical and horizontal moveable transporter to convey a disc from one location to another location. Hence, when there is an advantage of simplifying the transportation mechanism of Balsom's labeling processes, it would have been obvious to one of ordinary skill in the art to use Hayashi's disc transporting means in Balsom's disc labeling processes, because Hayashi's transporter can select a disc from a plurality of disc storage means in one location and then move the selected disc to the printer similar to the claimed features.

4. Claims 9 and 13 have limitations similar to those treated in the above rejection, and are met by the references as discussed above. Claim 9 however also recites the following limitations:

(a) as in claim 9, a supply station 46 for gripping a plurality of blank compact discs (Balsom's Fig. 1b; gripping means holding tight); and

(b) as in claim 13, the first gripping location 9 includes a centering feature 14 to axially align the first compact disc with the first gripping location (Hayashi's Fig. 2).

5. Claims 14-17 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Balsom. (U.S. Patent 5,592,596) in view of Hayashi (U.S. Patent 6,304,525).

Balsom teaches a compact disc processing system very similar to that of the instant invention. For example, Balsom teaches the following means and steps:

(a) as in claim 14, a printer 50 for printing indicia on a compact disc (Fig. 2);

(b) as in claim 14, a recorder 43 for recording information on the compact disc (Fig. 2);

(c) as in claim 14, a transporter carriage 45 for simultaneously gripping a compact disc in a fixed axial relation (Fig. 1b; gripping means holding tight);

(d) as in claim 14, gripping a first compact disc with the transporter carriage 45 (Fig. 1b);

(e) as in claim 14, moving the transporter carriage 45 to the recorder and placing the first compact disc in the recorder (Fig. 1b);

(f) as in claim 14, moving the transporter carriage 45 to a supply location and gripping a second compact disc with the transporter carriage while the first compact disc is in the recorder (column 2, last line, column 3, lines 1-9);



(g) as in claim 14, removing the first compact disc from the recorder with the transporter carriage 45 (column 2, last line, column 3, lines 1-9);

(h) as in claim 14, placing a second compact disc in the recorder after the first compact disc has been removed (column 2, last line, column 3, lines 1-9);

(i) as in claim 14, moving the transporter carriage 45 to the printer 50 and placing the first compact disc in the printer (column 5, lines 65-67); and

(j) as in claim 17, removing the first compact disc from the printer (inherent feature where a disc needs to be removed to other location after it is being printed).

However, Balsom does not teach the following:

(a) as in claim 14, the transporter simultaneously grips both a first and second compact discs on first and second planes;

(b) as in claim 14, the first and second compact discs are coextensive along a common axis in different planes;

(c) as in claim 14, rotating the transporter carriage about a horizontal axis;

(d) as in claim 15, the transporter carriage includes a gripping head having first and second grippers for gripping the first and second compact disc;

(e) as in claim 16, the first compact disc is rotated about its axis to a predetermined rotational position prior to placing the first compact disc in the printer;

(f) as in claim 17, selectively extending a tray of a compact disc organizer; and

(g) as in claim 17, placing the first compact disc in the extended tray for subsequent removal by a user.

Hayashi teaches a disc inverting and conveying mechanism with a transporter carriage having all the above claimed features from (a) to (g). For example, Hayashi teaches the following:

(a) as in claim 14, the transporter 8 simultaneously grips both a first and second compact discs on first and second planes (Fig. 2);

(b) as in claim 14, the first and second compact discs are coextensive along a common axis in different planes (Fig. 2);

(c) as in claim 14, rotating the transporter carriage about a horizontal axis (Fig. 2);

(d) as in claim 15, the transporter carriage 8 includes a gripping head 9 having first and second grippers for gripping the first and second compact disc (Fig. 2);

(e) as in claim 16, the first compact disc is rotated about its axis to a predetermined rotational position prior to place the first compact disc (Fig. 2);

(f) as in claim 17, selectively extending a tray of a compact disc organizer 2 (Fig. 8); and

(g) as in claim 17, placing the first compact disc in the extended tray 2 for subsequent removal by a user (Fig. 8).

A typical disc labeling system such as Balsom's requires a disc conveying mechanism for transporting a selected disc from one location such as a recording means to another location such as a labeling means. For example, Hayashi uses a vertical and horizontal moveable transporter to convey a disc from one location to another location. Hence, when there is an advantage of simplifying the transportation mechanism of Balsom's labeling processes, it would have been obvious to one of ordinary skill in the art to use Hayashi's disc transporting means in Balsom's disc labeling processes, because Hayashi's transporter can select a disc from a plurality of disc storage means in one location and then move the selected disc to the printer similar to the claimed features.

6. Method claims 18, 19 and 21-26 are drawn to the method of using the corresponding apparatus claimed in claim 1.

Therefore method claims 18, 19 and 21-26 correspond to apparatus claim 1 and are rejected for the same reasons of obviousness as used above.

7. Claims 27 and 30 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Balsom. (U.S. Patent 5,592,596)) in view of Hayashi et al. (U.S. Patent 6,304,525).

Balsom teaches a compact disc processing system very similar to that of the instant invention. For example, Balsom teaches the following means and steps:

(a) as in claim 27, a printer 50 for printing indicia on a first compact disc (Column 6, lines 17-20);

(b) as in claim 27, a recorder 43 for recording information on the first compact disc (column 2, lines 9-12);  
and

(c) as in claim 27, a transporter carriage 45 is movable in a vertical direction (Fig. 1b).

However, Balsom does not teach the following:

(a) as in claim 27, the transporter carriage having a gripping head that is rotatable about a horizontal axis;

(b) as in claim 27, the gripping head includes first and second gripping locations to respectively grip the first and a second compact disc on first and second parallel planes; and

(c) as in claim 27, the first and second compact discs maintain a fixed axial relation while engaged by the gripping head.

Hayashi teaches a disc inverting mechanism having above features. For example, Hayashi teaches the following:

(a) the transporter carriage 8 having a gripping head 21 that is rotatable about a horizontal axis (Fig. 4);

(b) the gripping head includes first and second gripping locations 9 to respectively grip the first and a second compact disc on first and second parallel planes (Fig. 2); and

(c) the first and second compact discs maintain a fixed axial relation while engaged by the gripping head (Fig. 9).

A typical disc labeling system such as Balsom's requires a disc conveying mechanism for transporting a selected disc from one location such as a recording means to another location such as a labeling means. For example, Hayashi uses a vertical and horizontal moveable transporter to convey a disc from one location to another location. Hence, when there is an advantage of simplifying the transportation mechanism of Balsom's labeling processes, it would have been obvious to one of ordinary skill in the art to use Hayashi's disc transporting

means in Balsom's disc labeling processes, because Hayashi's transporter can select a disc from a plurality of disc storage means in one location and then move the selected disc to the printer similar to the claimed features.

8. Claim 30 has limitations similar to those treated in the above rejection, and is met by the references as discussed above. Claim 30 however also recites the following limitation which is also taught by Hayashi:

(a) as in claim 30, the first gripping location comprises a centering feature 14 to axially align the first compact disc with the first gripping location (Fig. 2).

***Allowable Subject Matter***

9. Claims 5, 28 and 29 are allowable over prior art.

10. Claims 2, 6-8, 10-12 and 31 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

11. The following is an Examiner's statement of reasons for the indication of allowable subject matter:

As in claims 2, 8 and 12, the prior art of record fails to teach or fairly suggests that the transporter carriage grips the first and second compact discs using a vacuum.

As in claims 5 and 11, the prior art of record fails to teach or fairly suggests that the compact disc processing system includes a selection mechanisms coupled to a plurality of disc trays for selectively moving the plurality of disc trays such that the first compact disc can be placed on the selected disc tray for storage.

As in claims 6 and 10, the prior art of record fails to teach or fairly suggests that the compact disc processing system includes a supply location having a vertically extending rod sized to fit within a central opening provided in the first compact disc.

As in claim 7, the prior art of record fails to teach or fairly suggests that the compact disc processing system includes a gripping head includes a motor for selectively rotating the first compact disc about its axis.

As in claim 28, the prior art of record fails to teach or fairly suggests that a compact disc processing system having a vacuum pump coupled to the gripping head to selectively provide a vacuum to the first and second gripping locations.

As in claim 31, the prior art of record fails to teach or fairly suggests that a compact disc processing system having a plurality of deflectable fingers which extend from the gripping head.

The features indicated above, in combination with the other elements of the claims, are not anticipated by, nor made obvious over, the prior art of record.

**12. THIS ACTION IS MADE FINAL. See MPEP § 706.07(a).**  
**Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).**  
**A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.**



13. Any response to this action should be mailed to:

Commissioner of Patents and Trademarks Washington, D.C.  
20231 Or faxed to:

(703) 872-9306 (for formal communications intended for  
entry. Or:

(703) 746-6909, (for informal or draft communications,  
please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park  
II, 2021 Crystal Drive, Arlington. VA., Sixth Floor  
(Receptionist).

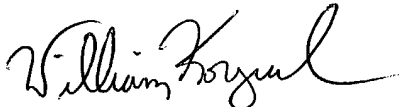
Any inquiry of a general nature or relating to the status  
of this application should be directed to the Group  
receptionist whose telephone number is (703) 305-4700.

Any inquiry concerning this communication or earlier  
communications from the examiner should be directed to Kim CHU  
whose telephone number is (703) 305-3032 between 9:30 am to  
6:00 pm, Monday to Friday.

KK 9/13/04

Kim-Kwok CHU  
Examiner AU2653  
September 13, 2004

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